

Amendments to the Specification

After paragraph [0038], please replace the paragraph added by Applicant's February 3, 2009 Amendment with the following paragraph:

Figure 18 is a cross sectional view of a thermodilution catheter with the narrowing at the tip of the injectate lumen, such as a guide wire port in a guide wire lumen.

Please replace paragraph [00142] of the originally filed specification with the following paragraph:

[00142] Measuring blood flow in the peripheral arteries, such as the kidney artery requires minimization of the catheter size to eliminate the influence on initial blood flow. The relatively large size of a catheter, especially located in the narrowing site of the blood vessel may decrease the blood flow and introduce inaccuracies into measurements. In this situation, it is beneficial to minimize the constructive elements of the catheter. For example, it is advantageous to use the lumen that is used for the guide wire as a lumen for injection of the indicator, as seen in Figures 17 and 18. In this situation, part of the introduced injectate volume will exit the catheter 10 downstream of the thermal sensor and the actual value of V in Equation 1 will be different. To minimize this effect, the lumen at the distal tip of the catheter can be made narrower than the remaining part of the lumen. The distribution of the injected volume V in the particular catheter construction can be estimated with prior bench tests.